Amendments to the Claims

1.-27. (Canceled)

28. (currently amended) A method for ~~preventing~~ reducing cell death from hypoxia-reoxygenation, comprising:

contacting a cell undergoing hypoxia reoxygenation with an effective amount of a composition of matter selected from the group consisting of epoxyeicosatrienoic acids (EETs), epoxyeicosatrienoic acid metabolic products, epoxyeicosatrienoic acid analogs, ~~and~~ dihydroxyeicosatrienoic acid analogs, and combinations thereof, wherein the epoxyeicosatrienoic acid analogs and dihydroxyeicosatrienoic acid analogs comprise an episulfide derivative; a sulfonamide derivative; an analog in which one or more EET olefins are removed; an analog in which an EET olefin is replaced with an acetylene group or a cyclopropane group; an analog in which an epoxide moiety is replaced with an oxitane or furan ring; or a heteroatom analog,

wherein the composition ~~prevents~~ reduces cell death in the cell undergoing hypoxia-reoxygenation.

29.-32. (Canceled)

33. (Currently Amended) The method of claim 28, wherein contacting a cell comprises administration of EETs, epoxyeicosatrienoic acid metabolic products, epoxyeicosatrienoic acid analogs, ~~and~~ dihydroxyeicosatrienoic acid analogs, or combinations thereof to a subject, wherein the epoxyeicosatrienoic acid and dihydroxyeicosatrienoic acid analogs comprise an episulfide derivative; a sulfonamide derivative; an analog in which one or more EET olefins are removed; an analog in which an EET olefin is replaced with an acetylene group or a cyclopropane group; an analog in which an epoxide moiety is replaced with an oxitane or furan ring; or a heteroatom analog.

34. (Previously presented) The method of claim 33, wherein the administration comprises producing EETs from a cytochrome P450 epoxygenase.

35. (Previously presented) The method of claim 34, wherein the EET is [11,12]-EET, [14,15]-EET, or combinations thereof, and wherein the epoxyeicosatrienoic acid metabolic product is [11,12]-DHET.

36. (Previously presented) The method of claim 34, wherein the cytochrome P450 epoxygenase is selected from the group consisting of CYP1A, CYP2B, CYP2C, CYP2E, and CYP2J enzymes.

37. (Previously presented) The method of claim 36, wherein the CYP2J enzyme is a mammalian homologue of CYP2J2.

38. (Previously presented) The method of claim 37, wherein the mammalian homologue is human CYP2J2.

39. (Previously presented) The method of claim 37, wherein the mammalian homologue is rat CYP2J3 or mouse CYP2J5.

40. (Previously presented) The method of claim 28 wherein the EET is [11,12]-EET or [14,15]-EET, and wherein the epoxyeicosatrienoic acid metabolic product is [11,12]-DHET.

41. (new) The method of claim 28, wherein the cell is contacted with an effective amount of a composition of matter comprising epoxyeicosatrienoic acids (EETs).

42. (new) The method of claim 28, wherein the cell is contacted with an effective amount of a composition of matter comprising epoxyeicosatrienoic acid metabolic products.

43. (new) The method of claim 28, wherein the cell is contacted with an effective amount of a composition of matter comprising an episulfide derivative.

44. (new) The method of claim 28, wherein the cell is contacted with an effective amount of a composition of matter comprising a sulfonamide derivative.

45. (new) The method of claim 28, wherein the cell is contacted with an effective amount of a composition of matter comprising an analog in which one or more EET olefins are removed.

46. (new) The method of claim 28, wherein the cell is contacted with an effective amount of a composition of matter comprising analogs in which the EET olefins are replaced with an acetylene group or a cyclopropane group.

47. (new) The method of claim 28, wherein the cell is contacted with an effective amount of a composition of matter comprising an analog in which an epoxide moiety is replaced with an oxitane or furan ring.

48. (new) The method of claim 28, wherein the cell is contacted with an effective amount of a composition of matter comprising a heteroatom analog.

49. (new) The method of claim 45, wherein the analog in which one or more EET olefins are removed comprises an epoxyeicosadienoic acid, an epoxyeicosamonoenoic acid, or an epoxyeicosanoic acid.

50. (new) The method of claim 33, wherein contacting a cell comprises administration of an effective amount of a composition of matter comprising epoxyeicosatrienoic acids (EETs) to the subject.

51. (new) The method of claim 33, wherein contacting a cell comprises administration of an effective amount of a composition of matter comprising epoxyeicosatrienoic acid metabolic products to the subject.

52. (new) The method of claim 33, wherein contacting a cell comprises administration of an effective amount of a composition of matter comprising an episulfide derivative to the subject.

53. (new) The method of claim 33, wherein contacting a cell comprises administration of an effective amount of a composition of matter comprising a sulfonamide derivative to the subject.

54. (new) The method of claim 33, wherein contacting a cell comprises administration of an effective amount of a composition of matter comprising an analog in which one or more EET olefins are removed to the subject.

55. (new) The method of claim 33, wherein contacting a cell comprises administration of an effective amount of a composition of matter comprising an analog in which the EET olefins are replaced with an acetylene group or a cyclopropane group to the subject.

56. (new) The method of claim 33, wherein contacting a cell comprises administration of an effective amount of a composition of matter comprising an analog in which an epoxide moiety is replaced with an oxitane or furan ring to the subject.

57. (new) The method of claim 33, wherein contacting a cell comprises administration of with an effective amount of a composition of matter comprising a heteroatom analog to the subject.

58. (new) The method of claim 54, wherein the analogs in which one or more EET olefins are removed comprise an epoxyeicosadienoic acid, an epoxyeicosamonoenoic acid, or an epoxyeicosanoic acid.